CONVERTING THE SOLID WASTE STREAM TO ETHANOL

March 17, 2006

MR. JIM BOYD - CHAIRMAN
BIOENERGY INTERAGENCY WORKING GROUP
C/O CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA

RE: PUBLIC COMMENTS – WORKSHOP ON A DRAFT BIOENERGY ACTION PLAN

Dear Chairman Boyd:

Waste To Energy (WTE) and our partners (including Genahol, Inc.) represent one of the developers trying to establish Conversion Technology (CT) facilities in California. After five years, we now have a total of six Municipal Solid Waste (MSW) projects and one agricultural residual material project in California; as well as being one of two CT firms remaining in the 4 year old Santa Barbara County (SBC) bid. In Santa Barbara County, the CIWMB has provided them with $400,000 to direct our firm to run "Source Tests" (air emissions testing on our technology) with SBC solid waste from their landfill as the final part of their bid process. This is obviously, a high-profile project and one that will also have a significant impact on CT developments in the State of California.

On behalf of myself and my partners, we would like to congratulate the Bioenergy Interagency Working Group and the Navigant Consulting group for putting together a very methodical and goal-oriented Bioenergy Action Plan. We fully support your efforts in this regard. Of special interest were the provisions mentioned in the workshop for the State of California to provide a "pool" for Efficiency Guarantees on new technologies. Although this idea is too late for our company, it is one of the most important barriers to get through for any new technology.

That said, however, there is a major obstacle blocking development of CTs in California! The current CA Codes have erroneously defined CTs as: 1) disposal, 2) less worthy than burning trash, and 3) acknowledges, when AB 939 was implemented – the act did not anticipate the development of advanced technologies to address fractions of the solid waste stream – and thus, there is no provision for CTs. The Waste Management Board must have a full set of tools to effectively implement and manage the biomass materials in the State of California – including CTs! The foundation must be set before the State can begin to think in terms of implementing the goals of the Bioenergy Action Plan; including a set of rules and regulations that are flexible enough for future technologies that we can not even imagine today!

For your reference, I am attaching to this letter, the language of AB 1090 (Matthews, 2005) (as well as a comparable version of AB 2118). **AB 1090 is the only realistic way of satisfying all stakeholders** in California (including all of the jurisdictions that have responsibility for management of the solid waste stream in California), the CT developers, environmental concerns and the citizens of California!

4004 STAG'S LEAP WAY, PASO ROBLES, CA 93446 805-239-8714 / 805-239-0517 *FAX*

CONVERTING THE SOLID WASTE STREAM TO ETHANOL

AB 1090 was killed in the Assembly Natural Resources Committee (ANRC, Chaired by Assembly Member Loni Hancock) in January 2006. In place of AB 1090, Assembly Member Matthews was forced into a compromise position to support unsuitable language, now contained in AB 2118 (Matthews, 2006) This action was necessary in order to satisfy several special interest groups who want to protect landfilling California waste. In actuality, AB 2118 needs to be killed and the entire language of AB 1090 should be substituted instead. *(Please refer to letters written to Assembly Member Matthews and all interested parties within the State of California from the LA County Task Force – representing the County and 88 cities; as well as the letter from the Southern California League of Cities for more details on why they and others can not support AB 2118.)*

The State of California should also closely examine provisions of AB 727 (a 2005-2006 bill also killed in the ANRC). This bill would provide for the establishment of six (6) CT demonstration plants in California. By building these plants, all concerned parties would have actual facilities to measure positive or negative aspects of operations.

In addition, I am also attaching a Powerpoint Presentation that I gave following the Hurricane Katrina disaster last year. It provides you with a summary understanding of the implications of a loss of transportation fuels given one out of many "Pressure Points" of supply interruption, and the need for transportation fuels from biomass.

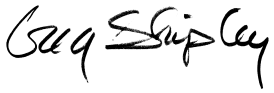
The hurricane season this year, is predicted to be similar to last year's record-breaking hurricane season. The destruction of Gulf Coast oil production WAS averted last year. Will we be as lucky this year? With petrochemical production and supplies under severe pressure throughout the Middle East, civil war in Nigeria, political unrest and potential loss of supplies from Venezuela and/or Mexico; and with increased demand from expanding economies in India and China … will we be fortunate enough to have a steady supply of transportation fuels AT ANY COST!? Producing biofuels from abundant supplies of biomass is a logical and sensible way to protect the interests of the California economy!

Private industry is ready to invest and support the provisions of the Bioenergy Action Plan NOW! Our alternative is to develop CTs (along with jobs, taxes and other economic benefits) in neighboring states and export our products to California.

In our view, California MUST take reasonable and effective control of its own destiny NOW! California must pass the provisions of AB 1090 (to a letter) THIS YEAR and move forward on implementing the Bioenergy Action Plan!

If I or my company can be of any help, please do not hesitate to contact us.

Best Regards,
WASTE TO ENERGY



Greg Shipley
President and California Partner of Genahol, Inc.

Attachments: Powerpoint Presentation, AB 1090 Bill, Letters regarding opposition to AB 2118

Cc: BPA, CIWMB, CEC, Assembly Member Hancock, Assembly Leader Nunez, Senator Leader Perata, Governor Schwarzenegger

Conversion Technologies

WASTE TO ENERGY – 4004 Stag's Leap Wy, Paso Robles, CA 93446 – 805-239-8714

How WTE Conversion Technologies are Creating Beneficial Uses from Biomass

WTE Creates Transportation Fuels, Energy & Power, Electricity & Bio-Chemical Products from Biomass = Post-Recycled Materials from Solid Municipal, Commercial, Forest & Agricultural Waste Streams throughout the United States

Contact:

Greg Shipley
Waste To Energy
805-239-8714 - O
805-591-9652 - C

Energy Policy - Disasters

WASTE TO ENERGY – 4004 Stag's Leap Wy, Paso Robles, CA 93446 – 805-239-8714

PRESSURE POINTS

CA ECONOMY IS AT THE MERCY OF UNCONTROLABLE EVENTS

The World A GROWING GAP BETWEEN SUPPLY & DEMAND

PRESSURE POINTS: SUPPLY DEMAND

- **SUPPLY:** Islamic conflicts in the Middle East – Iraq/Iran/Saudi Arabia – Civil War in Nigeria – an Anti-American dictator in Venezuela – Hurricanes & Ecological Disasters in the Gulf & Pacific NW
- **DEMAND:** Supply routes to deliver ethanol from the Midwest/South America & Europe to CA – Growing economies in China and India put tremendous pressure on scarce supplies

Energy Policy - Disasters

WASTE TO ENERGY – 4004 Stag's Leap Wy, Paso Robles, CA 93446 – 805-239-8714

25%+ of America's Oil & Gas Production And Refinery Capacity is AT RISK in the Gulf Coast

HURRICANE KATRINA CRIPPLES 95% OF GULF OIL

- 645 Platforms Evacuated – 79% of Gulf of Mexico Operations
- 90 Oil Rigs Evacuated – 67% of all Gulf of Mexico Operations
- US Oil Production Lost per Day = 1,427,969 (95.2%) Barrels
- US Gas Production Lost per Day = 8,798.54 Million CU Ft.

US Energy Information

• World petroleum demand growth for 2005-2006 is projected to average about 2.1 million barrels (88.2 million gallons) per day. (1 barrel = 42 US gallons)

• The world is currently using ~ 99% of its petroleum capacity. There has not been one new refinery built in California since 1973.

• US petroleum demand in 2005 is expected to average 20.9 million barrels per day – an estimated increase of 2% over 2004

• The US will import an estimated 12.07 million barrels per day in 2005 or 57.8% of its demand.

Hurricanes Katrina & Rita Devastated Oil Production & Refineries in the Gulf Coast

The US Needs to Rethink it's Energy Policy

Source: Department of Energy/Office of Energy Assurance/AP/USA Today

Energy Policy - Disasters
WASTE TO ENERGY – 4004 Stag's Leap Wy, Paso Robles, CA 93446 – 805-239-8714

KATRINA IS AN ECOLOGICAL DISASTER

In its rampage through Louisiana, Hurricane Katrina caused some 44 currently known oil spills that dumped more than 7.2 million gallons of oil onto land and into water, primarily the Mississippi River, according to reports from the US Coast Guard. That amount is equivalent to approximately 65% of the spill from the Exxon Valdez. Of the 7.2 million gallons, some 2 million gallons have been recovered, and approximately 3.4 million gallons are contained. Because the spills are dispersed over 44 sites (5 major, 4 medium and 35 minor) clean-up is going to be a slow process.

One of the spills in Louisiana

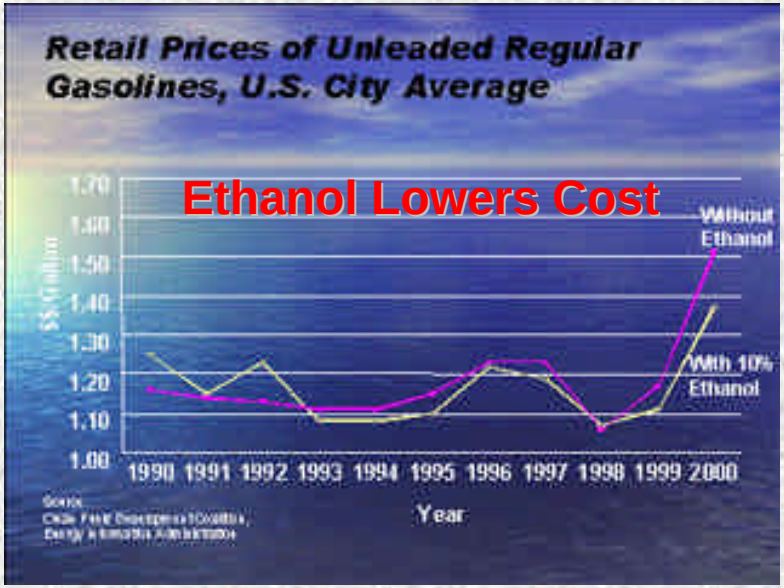
Major and Medium Oil Spills Resulting from Katrina

Company	Location	Spill (Gallons)
Bass Enterprises	Cox Bay, La	3,780,000
Shell	Pilot Town, La.	1,051,000
Chevron	Empire, La.	991,000
Murphy Oil	Meraux, La.	819,000
Bass Enterprises	Point a la Hache, La.	461,000
Chevron	Port Fourchon, La.	53,000
Venice Energy Services	Venice, La.	25,000
Sundown Energy	West Potash, La.	13,000
Shell	Nairn, La.	13,000
	Total	**7,206,000**

Source: USCG Storm Watch

Energy Economics

WASTE TO ENERGY – 4004 Stag's Leap Wy, Paso Robles, CA 93446 – 805-239-8714



August 31, 2005 Headlines

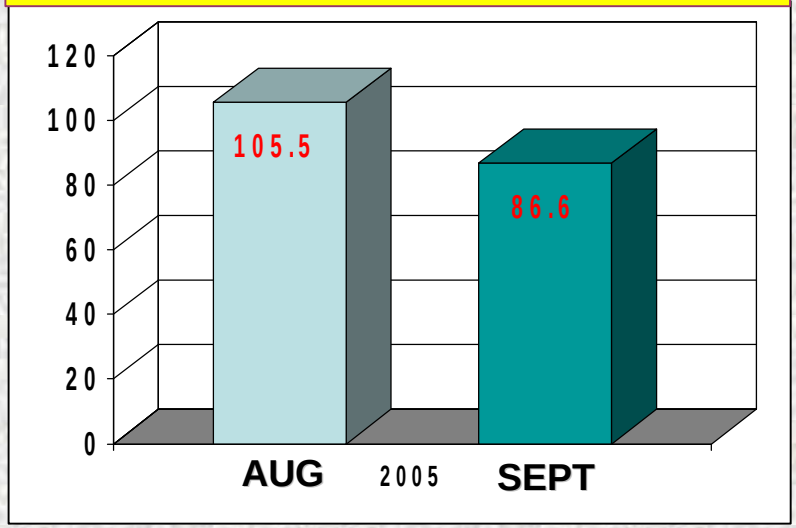
- Oil = $70+/barrel **RECORD** High
- Jet Fuel Soars 22% in 2 Days
- Gasoline – Up 41.39 cents to an ave. $2.4745/gal. **HIGHEST** since trading began in 1984.
- Heating Oil – Up 16.71 cents to $2.0759/gal. – A **RECORD**
- Natural Gas – Up 52 cents to $11.659/mill BTU. **HIGHEST** since natural gas contracts began in 1990

Gas Station Sign Prior to Hurricane Katrina

HIGH GAS PRICES = LOW CONFIDENCE

Consumer Confidence

Post Hurricane Katrina, US Consumer Confidence – Greatest Drop in 15 Yrs



Source: Reuters/USA Today

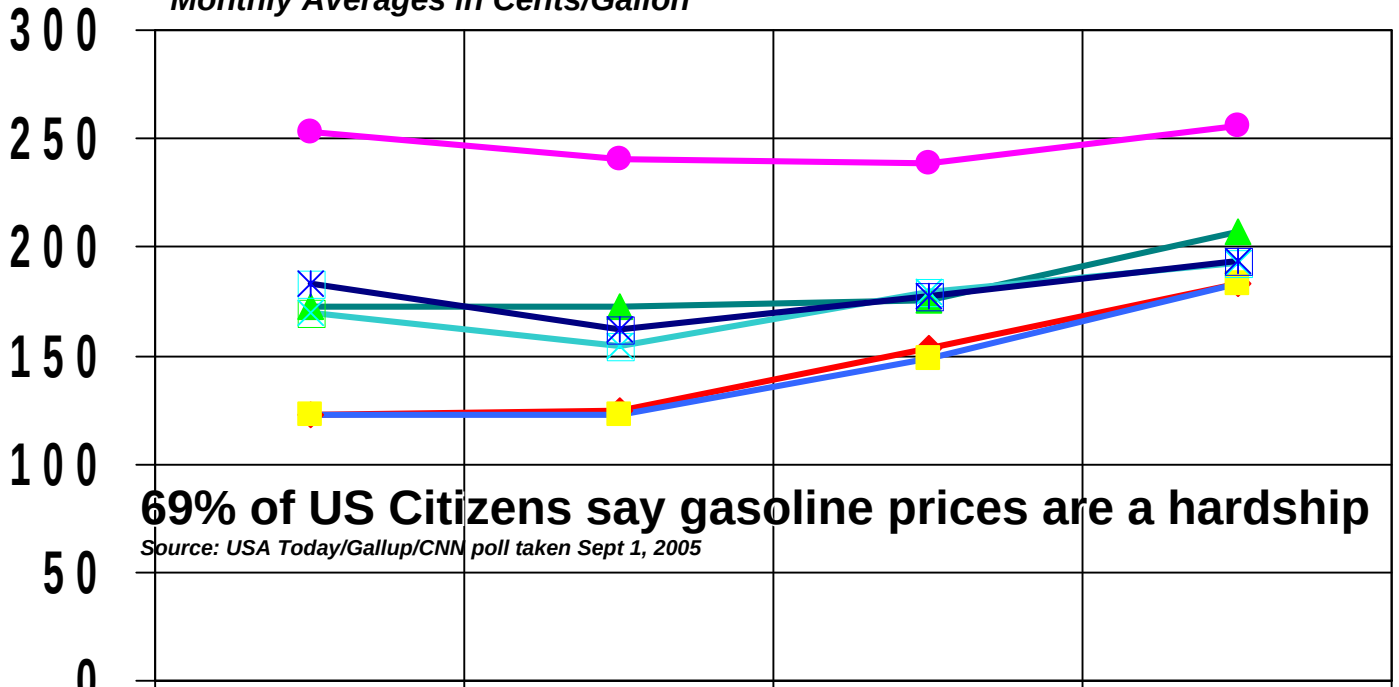
Transportation Fuels
WASTE TO ENERGY – 4004 Stag's Leap Wy, Paso Robles, CA 93446 – 805-239-8714

Ethanol 23-49% Cheaper than Gas

Reporting is Prior to Hurricane Katrina and Hurricane Rita

2005 West Coast Prices for Ethanol vs Unleaded Gasoline

Monthly Averages in Cents/Gallon



69% of US Citizens say gasoline prices are a hardship

Source: USA Today/Gallup/CNN poll taken Sept 1, 2005

	June	July	Aug	Sept
ETOH Spot	122.275	124.361	152.979	183.404
ETOH Rack	122.72	123.13	149	182.65
ETOH Splash	172.5	172.5	175.833	207.443
Un Gas Spot	169.525	154.396	179.682	192.889
Un Gas Rack	183.109	161.923	177.009	193.928
Un Gas Retail	253.163	240.59	238.468	255.519

ETOH = Fuel Grade Ethanol

Source: OPIS and Ethanol Producers Magazine

Ethanol Feedstock
WASTE TO ENERGY – 4004 Stag's Leap Wy, Paso Robles, CA 93446 – 805-239-8714

Corn versus Biomass

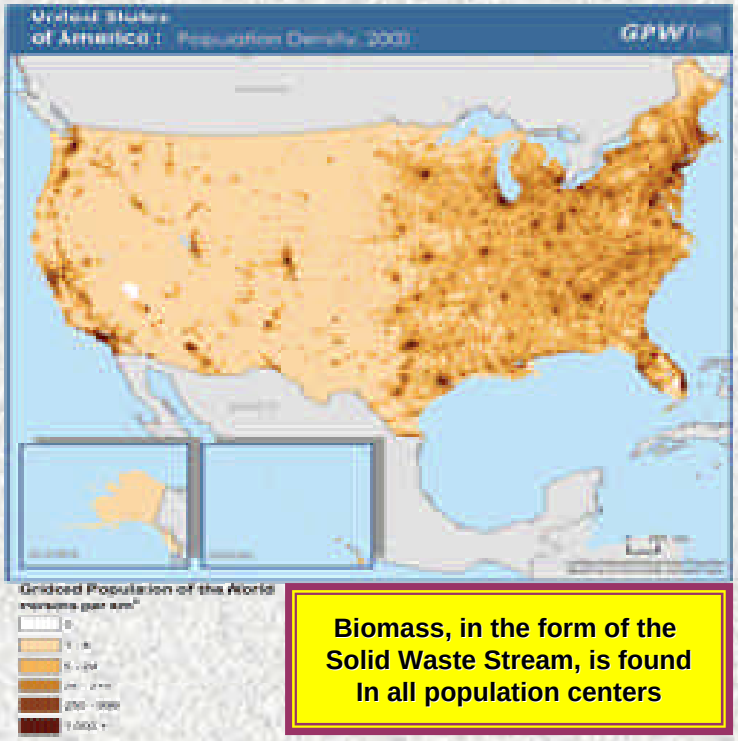
Corn-Based Ethanol Data

- Concentrated in the Midwest
- Ethanol plants are large, processing between 80-200 mill gallons/year
- Distribution system relies on rail or barge down the Mississippi River
  - Has same disadvantage as Hurricane-ravaged Gulf of Mexico Oil Production.
  - Supply disruptions cause price increases

Biomass-Based Ethanol Data

- New Technologies allow for small-medium sized plants to be co-located with any MRF, Transfer Station or Landfill in the Country.
- Solid Waste Stream is logistically located wherever the population is
- Also located near gasoline terminals, for splash-technique, to add ethanol to gasoline for delivery to local gas stations. JIT deliveries.
- Unlike corn or other commodity feedstocks, garbage is a growth industry that pays a "tipping fee" to ethanol producers. Therefore, earning revenue to obtain feedstock, instead of paying unknown prices for corn. Biomass is a long-term, stable commodity.

NO SUPPLY INTERRUPTIONS



Biomass, in the form of the Solid Waste Stream, is found In all population centers

Energy Solutions
WASTE TO ENERGY – 4004 Stag's Leap Wy, Paso Robles, CA 93446 – 805-239-8714

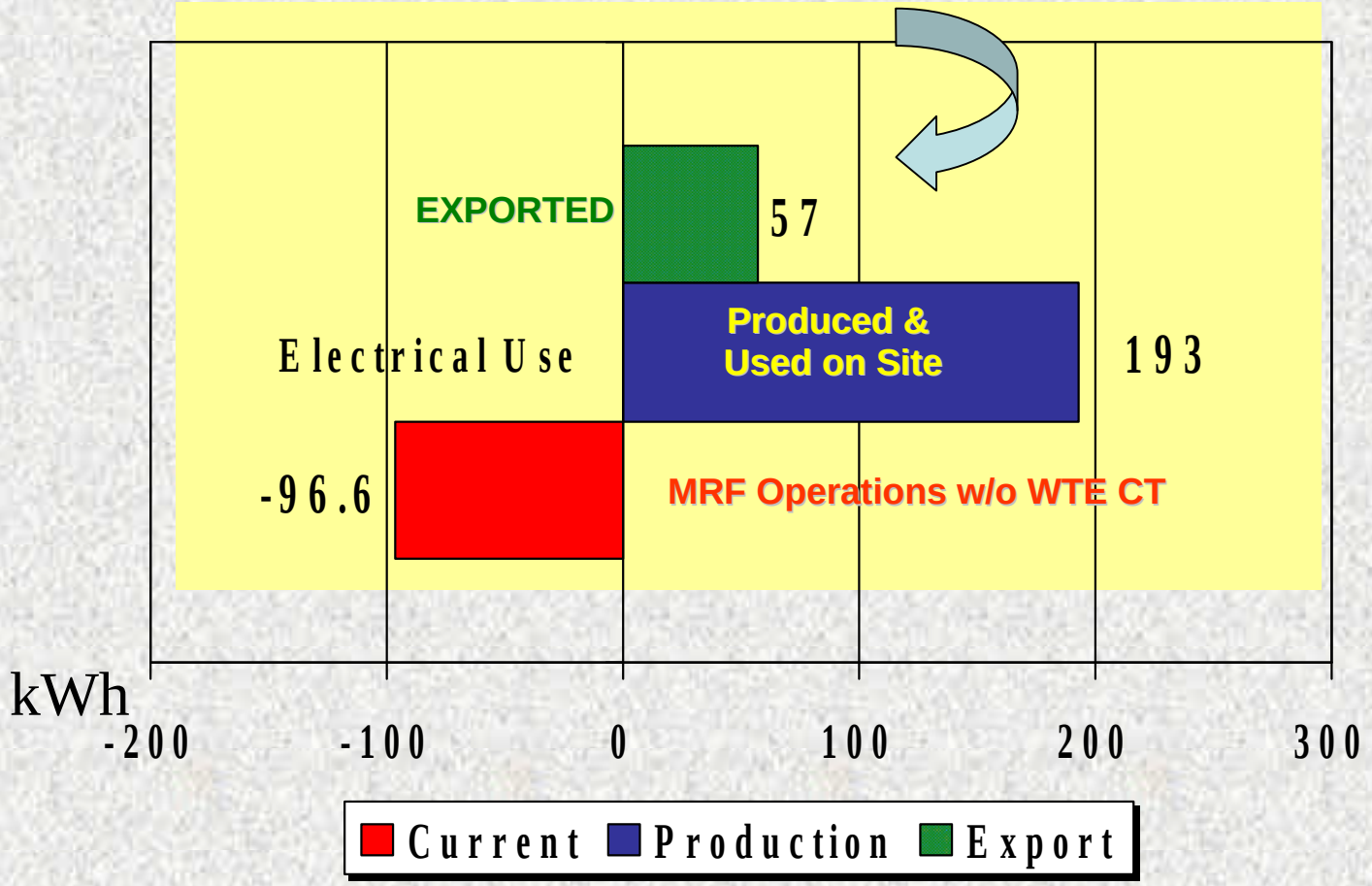
WTE Plant Energy Efficiencies

A Typical Transfer Station Using WTE Technology

Export of Excess Electricity

250 kW/day PRODUCED FROM ETHANOL RESIDUALS @ 4,000 TPD

Enough kWh to run 830 Homes/day



Energy Solutions
WASTE TO ENERGY – 4004 Stag's Leap Wy, Paso Robles, CA 93446 – 805-239-8714

Ethanol's Environmental Benefits

Waste To Energy's
Use of Conversion Technologies to Process Biomass

If WTE Technologies are Applied to the US Biomass Supply, each year the following beneficial uses would create:

12.3 Billion Gallons of Ethanol/yr

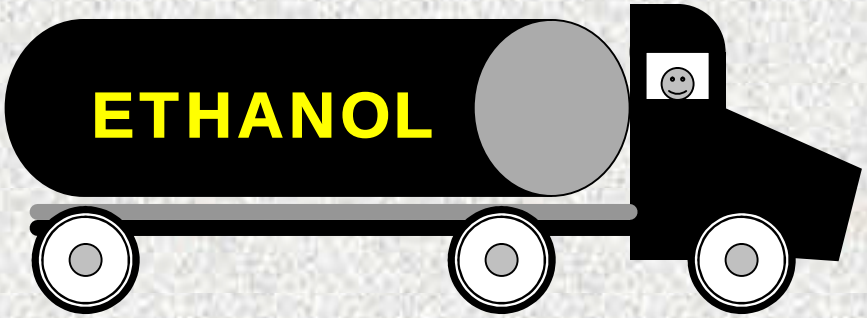
Expanding America's Refinery Capacity by 13%

Produce enough excess electricity to power 100 Thousand homes per year

Our Closed-Loop Energy Efficient System also powers our own facility

Reduce traffic leaving Solid Waste Facilities by 38%

Reduced Air Emissions is Good for the Environment



CT Financial Rewards
WASTE TO ENERGY – 4004 Stag's Leap Wy, Paso Robles, CA 93446 – 805-239-8714

Conversion Technology Financial Report

WTE Turns Waste Into Profit

Feedstock Sources:

- MSW – Post Recycling
  - Green Waste
  - Dirty Paper/Fiber
  - C&D
- Agricultural Waste
  - Orange/Lemmon Peel
  - Grape & Winery Waste
  - Baby Carrots
- Forest & Paper Mill Residues
- Old Beverages
- And Many More Applications

1 Ton of Biomass Produces:

- 60-75 Gal of Ethanol
- .06 kW of excess electricty
- $112+ of Revenue
- $60+ of Fed Tax Credit
- National Security

CALIFORNIA IS VIRTUALLY ALONE IN THE US – BY DISCOURAGING CTs!

HOW CAN CA GENERATE VALUABLE TRANSPORTATION FUELS AND OTHER BENEFICIAL BIO-PRODUCTS?

- **CA must recognize inaccurate & scientifically wrong regulations and laws**
- **CA must pass legislation with the exact same language as AB 1090. Establishing an instant infrastructure that would convert all of CA's biomass into bio-fuels, bio-chemicals & power.**
- **Instead of filling up landfills, CA would generate power, jobs, tax revenues AND stop the need to import products from outside of the state and the country!**
- **If CA can give diversion credits to a flow of recycled materials to China – why not CTs?!**

LOS ANGELES COUNTY
SOLID WASTE MANAGEMENT COMMITTEE/
INTEGRATED WASTE MANAGEMENT TASK FORCE
900 SOUTH FREMONT AVENUE, ALHAMBRA, CALIFORNIA 91803-1331
P.O. BOX 1460, ALHAMBRA, CALIFORNIA 91802-1460
www.lacountyiswmtf.org

DONALD L. WOLFE
CHAIRMAN

March 15, 2006

The Honorable Barbara S. Matthews
State Capitol Room 5155
Sacramento, CA 94249-2017

Dear Assembly Member Matthews:

ASSEMBLY BILL 2118 (INTRODUCED FEBRUARY 17, 2006)
CONVERSION TECHNOLOGIES

The Los Angeles County Solid Waste Management Committee/Integrated Waste Management Task Force (Task Force) would like to submit the following comments regarding Assembly Bill 2118 (AB 2118), relating to conversion technologies.

Pursuant to Chapter 3.67 of the Los Angeles County Code and the California Integrated Waste Management Act of 1989 (Assembly Bill 939, as amended), the Task Force is responsible for coordinating the development of all major solid waste planning documents prepared for the County of Los Angeles and its 88 cities in Los Angeles County. Consistent with these responsibilities and to ensure a coordinated and cost-effective solid waste management system in Los Angeles County, the Task Force also addresses issues impacting the system on a Countywide basis. The Task Force membership includes representatives of the League of California Cities-Los Angeles County Division, County of Los Angeles Board of Supervisors, City of Los Angeles, waste management industry, environmental groups, the public, and a number of other governmental agencies.

With the array of societal, economic, and environmental benefits that conversion technologies offer, we were bewildered to see the legislative language contained in AB 2118 contradict your previous legislation promoting conversion technologies (AB 1090, as introduced February 22, 2005) especially since AB 1090 was supported by a diverse coalition of stakeholders. This outpouring of support for AB 1090 is derived from the recognition that conversion technologies utilize modern scientific advances to convert waste that cannot be recycled into useful products and/or renewable clean energy rather than continuing to bury or burn it. As a result, conversion technologies reduce our dependence on landfilling, reduce green house gas emissions, reduce our dependence on foreign oil, creates local high-paying jobs, and brings us closer to achieving a 'zero waste' environment.

On February 23, 2006, the Task Force voted to oppose AB 2118, which we believe would do more to hinder the development of conversion technologies than if the current statutes and regulations were to remain unchanged. On February 28, 2006, I spoke extensively with Jim Collin of your staff regarding our concerns. Although the Task Force voted to oppose AB 2118, we are hopeful that these concerns can be resolved and we appreciate the opportunity to dialogue with your staff. Specifically, our concerns are that AB 2118 would:

- Exclude conversion technology facilities from being considered as ***nondisposal*** facilities and classifies them as solid waste ***disposal*** facilities. This stifles the development of conversion technologies by having them comply with inappropriate regulations and siting/permitting requirements, resulting in unnecessary delays and higher costs. [Public Resources Code (PRC) 40151]

- Revise the definition of Transfer or Processing Station to exclude activities involving "converting" solid waste. [PRC 40200]

- Place conversion technology facilities that produce ***electricity*** or ***energy*** in the same category as incineration, undermining the benefits of conversion and creating public confusion. [PRC 40116.5 (a) & 40201]

- Expand the California Integrated Waste Management Board's (Waste Board) authority over "waste-derived materials." [PRC 40116.5 (a)]

- Require conversion technology facilities to be identified in the Countywide Siting Element. This ***new*** requirement would be a significant financial burden for conversion technology development in Los Angeles County since it is a 2-year process at a cost of $500,000. [PRC 40501]

- Require conversion technology facilities to comply with the Waste Board's Disposal Reporting System, further burdening conversion technology facilities. [PRC 41821.5]

- Provide **no** diversion credit for conversion technologies, regardless of the process used or product produced. This in effect places incineration above conversion in the solid waste management hierarchy since jurisdictions currently receive 10% diversion credit for utilizing incinerators (such as biomass conversion facilities). [PRC 40116.5 (b) & 40201]

- Place extraordinary permitting requirements on conversion technology facilities that no other type of solid waste facility (nondisposal or disposal) in California is required to comply with. [PRC 44153]

- Require all jurisdictions (including out-of-State) to implement specific programs, potentially in violation of the Federal Interstate Commerce Clause. [PRC 44153 (c)]

- Require conversion technology facility operators along with the appropriate local enforcement agency (LEA) to become an agent of the Waste Board to verify that a jurisdiction utilizing the facility is implementing all diversion programs identified in its Source Reduction and Recycling Element. This encroaches into the authority of local governments to determine which solid waste facility they can or cannot use. [PRC 44153 (c)]

- Prohibit the Waste Board's LEA from issuing a new or revised Solid Waste Facility Permit to a conversion technology facility unless the proponent substantiates the facility (a) "maintains or enhances environmental benefits", and (b) "maintains or enhances the economic sustainability of the integrated waste management system." This requirement is not only unprecedented and exclusively applicable to conversion (and not other types of solid waste facilities), but it is difficult to achieve since it is ambiguous and too subjective. [PRC 44153(e)&(f)]

We are hopeful that the above provisions were unintended based on your history of supporting conversion technologies and leadership role in introducing and carrying out corresponding legislation. The Task Force recognizes that there remains some special interest opposition to the provisions of AB 1090 as originally introduced. However, we respectfully request reasonable and scientifically-supported provisions be incorporated into this legislative proposal that includes the following while addressing the above-listed concerns.

- Provides diversion credit for solid waste beneficially recovered through conversion technologies

- Identifies conversion technologies as beneficial use technologies

- Appropriately places conversion technology in the waste management hierarchy in relation to their environmental and societal benefits

- Corrects technologically inaccurate definitions

With national attention focusing on the need to reduce our dependence on fossil fuels, and California's efforts to accomplish the 'zero waste' goal, a golden opportunity exists where both needs can be simultaneously met. This opportunity is through the development and utilization of conversion technologies. For the reasons stated, the Task Force **opposes** AB 2118. However, we look forward to working with your office, the Waste Board and other key stakeholders to revise AB 2118 to advance conversion technologies to address the environmental challenges of the 21st century.

Should you have any questions, please contact me at (626) 569-2100 or your staff may contact Mr. Mike Mohajer of the Task Force at (909) 592-1147.

Sincerely,

Margaret Clark

Margaret Clark, Vice-Chair
Los Angeles County Solid Waste Management Committee/
Integrated Waste Management Task Force and
Council Member, City of Rosemead

VJ/CS:ro
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cc: Governor Schwarzenegger
Special Assistant to the Governor for Energy and Environmental Technologies (Terry Tamminen)
Senate President Pro Tem Don Perata
Assembly Speaker Fabian Nuñez
Each Member of the Assembly Natural Resources Committee
Each Member of the Assembly Agricultural Committee
Each Member of the Los Angeles County State Legislative Delegation
Each Member of the Los Angeles County Federal Legislative Delegation
Secretary of the California Environmental Protection Agency (Alan C. Lloyd)
Secretary of California Department of Food and Agriculture (A.G. Kawamura)
Each Member of the California Integrated Waste Management Board
Each Member of the California Energy Commission
Each Member of the County of Los Angeles Board of Supervisors
Each City Mayor in the County of Los Angeles
Federal Office of Science and Technology Policy
California State Association of Counties

League of California Cities
League of California Cities, Los Angeles County Division
Southern California Association of Governments
San Gabriel Valley Council of Governments
South Bay Cities Council of Governments
Solid Waste Association of North America
Each Member of the City of Los Angeles' Ad Hoc RENEW LA Committee
County Sanitation Districts of Los Angeles County
University of California, Riverside
University of California, Davis
Each Member of the Los Angeles County Integrated Waste Management Task Force

Bill Killed Jan 2006 in the ANRC
Should be substituted for the current AB2118

CALIFORNIA LEGISLATURE—2005–06 REGULAR SESSION

ASSEMBLY BILL No. 1090

Introduced by Assembly Member Matthews

February 22, 2005

An act to amend Sections 40051 and 40201 of, to add Sections 40105.5, 40116.5, 40172.5, and 41781.3 to, and to repeal Section 40117 of, the Public Resources Code, relating to solid waste.

LEGISLATIVE COUNSEL'S DIGEST

AB 1090, as introduced, Matthews. Solid waste: diversion: conversion.

The existing California Integrated Waste Management Act of 1989 establishes an integrated waste management program administered by the California Integrated Waste Management Board and requires the board and local agencies to promote specified waste management practices, in order of priority. Under existing law, the act requires each city, county, and regional agency, if any, to develop a source reduction and recycling element of an integrated waste management plan containing specified components. The first and each subsequent revision of the element is required to divert 50% of the solid waste subject to the element, on and after January 1, 2000, through source reduction, recycling, and composting activities. except as specified.

The act defines the term "transformation" as meaning incineration, pyrolysis, distillation, or biological conversion other than composting. The act provides that "transformation" does not include composting, gasification, or biomass conversion.

This bill would revise the waste management practices that the board and local agencies are required to promote.

The bill would repeal the definition of the term "gasification" and would define the terms "conversion technology," "beneficial use," and

"recovery" for purposes of the act. The bill would revise the definition of the term "transformation" to exclude pyrolysis, distillation, or biological conversion other than composting from that definition and would specify that transformation does not include conversion technology.

The bill would allow the source reduction and recycling element to include, in the 50% of solid waste required to be diverted, solid waste that is subject to recovery through conversion technology, if specified conditions are met with regard to the conversion technology project and the board holds a public hearing and makes certain findings.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: no.

The people of the State of California do enact as follows:

SECTION 1. Section 40051 of the Public Resources Code is amended to read:

40051. In implementing this division, the board and local agencies shall do both of the following:

(a) Promote the following waste management practices in order of priority:

(1) Source reduction.

(2) ~~Recycling and composting~~ *Recovery, through recycling, composting, conversion technology, or other beneficial use technologies*.

(3) Environmentally safe transformation and environmentally safe land disposal, at the discretion of the city or county.

(b) Maximize the use of all feasible source reduction~~, recycling, and composting~~ *and recovery* options in order to reduce the amount of solid waste that must be disposed of by transformation and land disposal. For wastes that cannot feasibly be reduced at their source~~, recycled, or composted,~~ *or recovered for beneficial use,* the local agency may use environmentally safe transformation or environmentally safe land disposal, or both of those practices.

SEC. 2. Section 40105.5 is added to the Public Resources Code, to read:

40105.5. "Beneficial use" means the point at which solid waste is no longer a solid waste for purposes of this chapter and reenters commerce as a market commodity or feedstock. For

purposes of this section, that point occurs when the solid waste is used in a manufacturing process to make a product, used as an effective substitute for a commercial product, or used as a fuel for energy recovery.

SEC. 3. Section 40116.5 is added to the Public Resources Code, to read:

40116.5. (a) "Conversion technology" means the processing, through noncombustion thermal, chemical or biological processes, other than composting, of solid waste, including, but not limited to, organic materials such as paper, yard trimmings, wood wastes, agricultural wastes, and plastics.

"Conversion Technology" includes, but is not limited to, catalytic cracking, distillation, gasification, hydrolysis, and pyrolysis.

(b) "Conversion Technology" does not include anaerobic digestion, biomass conversion, aerobic or anaerobic composting, or incineration.

(c) "Conversion technology facility" means a facility that produces products, using conversion technology, including, but not limited to, electricity, alternative fuels, chemicals, or other products that meet quality standards for use in the marketplace.

SEC. 4. Section 40117 of the Public Resources Code is repealed.

~~40117. "Gasification" means a technology that uses a noncombustion thermal process to convert solid waste to a clean burning fuel for the purpose of generating electricity, and that, at minimum, meets all of the following criteria:~~

~~(a) The technology does not use air or oxygen in the conversion process, except ambient air to maintain temperature control.~~

~~(b) The technology produces no discharges of air contaminants or emissions, including greenhouse gases, as defined in subdivision (g) of Section 42801.1 of the Health and Safety Code.~~

~~(c) The technology produces no discharges to surface or groundwaters of the state.~~

~~(d) The technology produces no hazardous waste.~~

~~(e) To the maximum extent feasible, the technology removes all recyclable materials and marketable green waste compostable materials from the solid waste stream prior to the conversion~~

~~process and the owner or operator of the facility certifies that those materials will be recycled or composted.~~

~~(f) The facility where the technology is used is in compliance with all applicable laws, regulations, and ordinances.~~

~~(g) The facility certifies to the board that any local agency sending solid waste to the facility is in compliance with this division and has reduced, recycled, or composted solid waste to the maximum extent feasible, and the board makes a finding that the local agency has diverted at least 30 percent of all solid waste through source reduction, recycling, and composting.~~

SEC. 5. Section 40172.5 is added to the Public Resources Code, to read:

40172.5. "Recovery" means the reuse, recycling, and extraction of materials and energy from solid waste, including, but not limited to, recycling, composting, and conversion technology.

SEC. 6. Section 40201 of the Public Resources Code is amended to read:

40201. "Transformation" means *the* incineration~~, pyrolysis, distillation, or biological conversion other than composting~~ *or combustion of solid waste in an oxygen-rich environment*. "Transformation" does not include composting, ~~gasification, or~~ biomass conversion*, or conversion technology*.

SEC. 7. Section 41781.3 is added to the Public Resources Code, to read:

41781.3. For any city, county, or regional agency source reduction and recycling element submitted to the board after January 1, 1995, the element may include, in the 50 percent of solid waste required to be diverted, as specified in paragraph (2) of subdivision (a) of Section 41780, solid waste subject to recovery through conversion technology, if all of the following conditions are met:

(a) The conversion technology project is in compliance with all applicable laws, regulations, and ordinances.

(b) The board holds a public hearing in the city, county, or regional agency jurisdiction within which the conversion technology project is proposed, and, after the public hearing, the board makes all of the following findings, based upon substantial evidence in the record:

(1) The jurisdiction will continue to implement the recycling and diversion programs in the jurisdiction's source reduction and recycling element or its modified annual report.

(2) The facility complements the existing recycling and diversion infrastructure and is converting solid waste that was previously disposed.

(3) The facility maintains or enhances environmental benefits.

(4) The facility maintains or enhances the economic sustainability of the integrated waste management system.

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